REMARKS/ARGUMENTS

Claims 1, 3-4, 7, and 10-13 were pending in this application. No claims have been amended, canceled or added. Hence, claims 1, 3-4, 7, and 10-13 remain pending. Reconsideration and allowance of the present application based on the following remarks is respectfully requested.

35 U.S.C. §103 Rejections

1. Rejection Over Kopf-Sill in view of Crabtree

Claims 1, 3, and 4 stand rejected under 35 U.S.C. §103 (a) as being unpatentable over U.S. Pat. No. 6,613,512 or U.S. Pat. No. 6,524,790 (collectively "Kopf-Sill" in light of their duplicate disclosure) in view of Crabtree et al., Anal. Chem. 1999, 2130-2138 (hereinafter "Crabtree"). Applicants respectfully traverse the rejection for at least the reasons which follow.

The Office Action alleges that Kopf-Sill et al. disclose methods and microfluidic devices to measure reactants and reaction products while considering velocity, that reactants and products with different velocities are measured in a microfluidic channel, that in one embodiment the fluid samples are transported from a first position to a second position by electroosmotic flow, and that time dependent data generated is processed to include baseline subtraction and masking for accurate measurements of the analyte of interest. It is further alleged that multiple detection positions/zones are taught at two different time points in figure 1 of Kopf-Sill, that time difference and velocity are utilized in an equation to accurately measure the characteristic of interest in the analyte, that the various reactants and products can be assessed serially (individually) or simultaneously in the methods, and that Kopf-Sill teaches the step of normalizing or eliminating the velocity component in reaction measurements.

The Office Action relies on the Crabtree reference for allegedly disclosing a particle detection method which converts multiple-point (Shah function) time dependent measurements into fluorescence frequencies allowing for the viewing of analyte speed. It is further alleged that the SCOFT principle is utilized in a system comprising multiple detection slits that detect the sample fluorescence at varied times during the flow of sample through a

column or channel, that (in figure 1) the particle is constantly interrogated at a number of evenly spaced points (slits or zones) along the column or channel simultaneously by a single detector and that the signals measured from all of these points along the column are summed. It is further alleged that the process advantageously isolated the analyte peak from interferences such as baseline drift and line noise. The Office Action concludes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use dual detection zones, slits, spaces zones (plurality of detection zones) as taught by Crabtree in either method of Kopf-Sill because Crabtree taught that dual detection zones, slits, spaced zones advantageously isolated the analyte peak from interferences such as baseline drift and line noise and that one of ordinary skill in the art would have been motivated to utilize dual detection zones in order to more accurately detect the particles of interest.

Applicants respectfully submit that references cannot be combined as the Office has suggested and relies upon in the rejection. Kopf-Sill teaches the use of a "time masking" technique that utilizes a single detection zone. Though the Office suggests that the same analysis arrived at from data in a single detection zone could be accomplished with data from multiple detection zones, the Office has provided no explanation as to how that could be done. It appears that the Office is adding disclosure to the reference that does not exist.

Crabtree teaches a form of Fourier transform analysis for generating electropherograms. Crabtree's methodology does not relate in any way to the analysis of analyte data to substantially eliminate the velocity dependence of the measurement. Thus, there is nothing in Kopf-Sill that would lead one of ordinary skill in the art to develop a multiple detection zone technique and there is nothing in Crabtree's Fourier transform detection methodology that would lead one of ordinary skill in the art to develop a method to substantially eliminate the velocity dependence of an analyte measurement. There is no explanation within the references and no explanation by the Office as to how Kopf-Sill and Crabtree could be combined to yield Applicants' claimed method. Accordingly, The Office has not established a prima facie case of obviousness and the rejection should be withdrawn.

For at least these reasons, it is submitted that the claims are patentable over Kopf-Sill in view of Crabtree, and withdrawal of this rejection is respectfully requested.

2. Rejection Over Kopf-Sill and Crabtree in view of Squire

Claim 7 stands rejected under 35 U.S.C. §103(a) as unpatentable over Kopf-Sill in view of Crabtree, and further in view of *J. Microscopy*, 197(2) 2/2000, 136 – 149 (hereinafter "Squire"). This rejection is respectfully traversed. Whatever else Squire may disclose, it does not remedy the deficiencies of Kopf-Sill and Crabtree, as described above. As such, it is submitted that the claims are patentable over the cited art, and withdrawal of this rejection is respectfully requested.

3. Rejection Over Kopf-Sill and Crabtree in view of Armstrong

Claims 10-13 stand rejected under 35 U.S.C. §103(a) as unpatentable over Kopf in view of Crabtree, and further in view of *Cytometry*, 40:102-108, 2/2000 (hereinafter "Armstrong"). This rejection is respectfully traversed. Whatever else Armstrong may disclose, it does not remedy the deficiencies of Kopf-Sill and Crabtree, as described above. As such, it is submitted that the claims are patentable over the cited art, and withdrawal of this rejection is respectfully requested.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,

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